Bibliography of Documents Supporting External Program Review:

Hawaiian Monk Seal Research Program

Status & Population Monitoring

Antonelis, G. A., et al. (2006). "Hawaiian monk seal (Monachus schauinslandi): status and conservation issues." Atoll Research Bulletin **543**: 75-101.

Baker, J. D., et al. (2006). "Use of discovery curves to assess abundance of Hawaiian monk seals." Marine Mammal Science **22**(4): 847-861.

Baker, J. D., et al. (2011). "Dramatic shifts in Hawaiian monk seal distribution predicted from divergent regional trends." Marine Mammal Science **27**(1): 78-93.

Baker, J. D. and T. C. Johanos (2004). "Abundance of the Hawaiian monk seal in the main Hawaiian Islands." Biological Conservation **116**(1): 103-110.

Harting, A., et al. (2004). "Non-metrical digital photoidentification system for the Hawaiian monk seal." Marine Mammal Science **20**(4): 886-895.

Hawaiian Monk Seal Research Program (2014). "2014 MHI Hawaiian Monk Seal Population Summary - Main Hawaiian Islands."

Hawaiian Monk Seal Research Program (2014). "2014 MHI Hawaiian Monk Seal Population Summary - Northwest Hawaiian Islands."

Johanos, T. C. and J. D. Baker (2005). The Hawaiian monk seal in the northwestern Hawaiian Islands, 2000.

Lowry, L. F., et al. (2011). "Recovery of the Hawaiian monk seal (Monachus schauinslandi): a review of conservation efforts, 1972 to 2010, and thoughts for the future." Aquatic Mammals **37**(3): 397.

National Marine Fisheries Service (2015). "Draft 2015 Hawaiian monk seal stock assessment report; in Carretta et al. Pacific Stock Assessment."

Ecology

Basic Biology

Baker, J. D., et al. (2014). "Body growth in Hawaiian monk seals." Marine Mammal Science **30**(1): 259-271.

Baker, J. D. and P. M. Thompson (2007). "Temporal and spatial variation in age-specific survival rates of a long-lived mammal, the Hawaiian monk seal." Proceedings of the Royal Society B: Biological Sciences **274**(1608): 407-415.

Harting, A. L., et al. (2007). "Reproductive patterns of the Hawaiian monk seal." Marine Mammal Science **23**(3): 553-573.

Genetics

Aldridge, B. M., et al. (2006). "Paucity of class I MHC gene heterogeneity between individuals in the endangered Hawaiian monk seal population." Immunogenetics **58**(2-3): 203-215.

Schultz, J. K. (2011). "Population Genetics of the Monk Seals (Genus Monachus): A Review." Aquatic Mammals **37**(3): 227.

Schultz, J. K., et al. (2009). "Extremely low genetic diversity in the endangered Hawaiian monk seal (Monachus schauinslandi)." Journal of Heredity **100**(1): 25-33.

Schultz, J. K., et al. (2011). "Range-wide genetic connectivity of the Hawaiian monk seal and implications for translocation." Conservation Biology **25**(1): 124-132.

Schultz, J. K., et al. (2011). "Dizygotic twinning in the Hawaiian monk seal." Journal of Mammalogy **92**(2): 336-341.

Schultz, J. K., et al. (2010). "Genome-wide loss of diversity in the critically endangered Hawaiian monk seal." Diversity **2**(6): 863-880.

Movement/Space Use

Brillinger, D. R., et al. (2008). Three months journeying of a Hawaiian monk seal. Probability and statistics: Essays in honor of David A. Freedman, Institute of Mathematical Statistics: 246-264.

Johanos, T. C., et al. (2013). "Range-wide movement patterns of Hawaiian monk seals." Marine Mammal Science.

Parrish, F. A. and K. Abernathy (2006). "Movements of monk seals relative to ecological depth zones in the lower Northwestern Hawaiian Islands." Atoll Research Bulletin **543**: 115-130.

Foraging/Nutrition

Cahoon, M., et al. (2013). "Dietary comparison of two Hawaiian monk seal populations: the role of diet as a driver of divergent population trends." Endangered Species Research **20**: 137-146.

Littnan, C. L., et al. (2004). "Effects of video camera attachment on the foraging behavior of immature Hawaiian monk seals." Marine Mammal Science **20**(2): 345-352.

Longenecker, K. (2010). "Fishes in the Hawaiian monk seal diet, based on regurgitate samples collected in the Northwestern Hawaiian Islands." Marine Mammal Science **26**(2): 420-429.

Longenecker, K., et al. (2006). "Increasing taxonomic resolution in dietary analysis of the Hawaiian monk seal." Atoll Research Bulletin **543**: 101-113.

Parrish, F. A. and C. L. Littnan (2007). "Changing perspectives in Hawaiian monk seal research using animal-borne imaging." Marine Technology Society Journal **41**(4): 30-34.

Parrish, F. A., et al. (2008). "Foraging interaction between monk seals and large predatory fish in the Northwestern Hawaiian Islands." Endangered Species Research **4**(3): 299.

Parrish, F. A., et al. (2005). "Foraging of juvenile monk seals at French Frigate Shoals, Hawaii." Marine Mammal Science **21**(1): 93-107.

Piche, J., et al. (2010). "Characterization of forage fish and invertebrates in the Northwestern Hawaiian Islands using fatty acid signatures: species and ecological groups." Marine Ecology Progress Series **418**: 1-15.

Sprague, R., et al. (2013). "Estimation of Hawaiian monk seal consumption in relation to ecosystem biomass and overlap with fisheries in the main Hawaiian Islands." U.S. Dep. Commer., NOAA Tech. Memo **NOAA-TM-NMFS-PIFSC-37**: 42 p. + Appendices.

Stewart, B. S., et al. (2006). "Foraging biogeography of Hawaiian monk seals in the northwestern Hawaiian Islands." Atoll Research Bulletin **543**(13): 1-145.

Oceans/Ecosystems

Baker, J. D., et al. (2012). "Relative influence of climate variability and direct anthropogenic impact on a sub-tropical Pacific top predator, the Hawaiian monk seal." Marine Ecology Progress Series **460**: 175-189.

Baker, J. D., et al. (2006). "Potential effects of sea level rise on the terrestrial habitats of endangered and endemic megafauna in the Northwestern Hawaiian Islands." Endangered Species Research 4: 1-10.

Baker, J. D., et al. (2007). "Effect of variable oceanic productivity on the survival of an upper trophic predator, the Hawaiian monk seal Monachus schauinslandi." Marine Ecology Progress Series **346**: 277-283.

Moll, R. J., et al. (2007). "A new 'view' of ecology and conservation through animal-borne video systems." Trends in ecology & evolution **22**(12): 660-668.

Parrish, F. A. (2009). "Do monk seals exert top-down pressure in subphotic ecosystems?" Marine Mammal Science **25**(1): 91-106.

Parrish, F. A., et al. (2012). "Estimating the carrying capacity of French Frigate Shoals for the endangered Hawaiian monk seal using Ecopath with Ecosim." Marine Mammal Science **28**(3): 522-541.

Threats

Bertilsson-Friedman, P. (2006). "Distribution and frequencies of shark-inflicted injuries to the endangered Hawaiian monk seal (Monachus schauinslandi)." Journal of Zoology **268**(4): 361-368.

Donohue, M. and D. G. Foley (2007). "Remote sensing reveals links among the endangered Hawaiian monk seal, marine debris, and El Nino." Marine Mammal Science **23**(2): 468-473.

Ferretti, F. (2011). "Peer review report of shark mitigation as a tool for conservation of the Hawaiian Monk Seal."

Gobush, K. S. and S. C. Farry (2012). "Non-lethal efforts to deter shark predation of Hawaiian monk seal pups." Aquatic Conservation: Marine and Freshwater Ecosystems **22**(6): 751-761.

Harting, A. L. (2010). Shark Predation on Hawaiian Monk Seals Workshop, Honolulu, Hawaii, January 8-9, 2008, US Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Pacific Islands Fisheries Science Center.

Johanos, T. C., et al. (2010). "Impacts of sex ratio reduction on male aggression in the critically endangered Hawaiian monk seal Monachus schauinslandi." Endangered Species Research **11**: 123-132.

Health & Disease

Aguirre, A. A., et al. (2007). "Infectious disease monitoring of the endangered Hawaiian monk seal." Journal of Wildlife Diseases **43**(2): 229-241.

Duignan, P. J., et al. (2014). "Phocine Distemper Virus: Current Knowledge and Future Directions." Viruses **6**(12): 5093-5134.

Gobush, K. S., et al. (2011). "Effectiveness of an antihelminthic treatment in improving the body condition and survival of Hawaiian monk seals." Endangered Species Research **15**(1): 29-37.

Gobush, K. S., et al. (2014). "Validation and application of noninvasive glucocorticoid and thyroid hormone measures in free-ranging Hawaiian monk seals." General and comparative endocrinology **195**: 174-182.

Goldstein, T., et al. (2006). "Molecular identification of a novel gamma herpesvirus in the endangered Hawaiian monk seal (Monachus schauinslandi)." Marine Mammal Science **22**(2): 465.

Honnold, S. P., et al. (2005). "Toxoplasmosis in a Hawaiian monk seal (Monachus schauinslandi)." Journal of Parasitology **91**(3): 695-697.

Littnan, C. L., et al. (2006). "Survey for selected pathogens and evaluation of disease risk factors for endangered Hawaiian monk seals in the main Hawaiian Islands." EcoHealth **3**(4): 232-244.

Lopez, J., et al. (2012). "Persistent organic pollutants in the endangered Hawaiian monk seal (Monachus schauinslandi) from the main Hawaiian Islands." Marine Pollution Bulletin **64**(11): 2588-2598.

Lopez, J., et al. (2014). "Geographic variation of persistent organic pollutants in Hawaiian monk seals Monachus schauinslandi in the main Hawaiian Islands." Endangered Species Research **24**: 249-262.

Reif, J. S., et al. (2004). "Morphometry, hematology, and serum chemistry in the Hawaiian monk seal (Monachus schauinslandi)." Marine Mammal Science **20**(4): 851-860.

Reif, J. S., et al. (2006). "Gastrointestinal helminths in the Hawaiian monk seal (Monachus schauinslandi): associations with body size, hematology, and serum chemistry." Aquatic Mammals **32**(2): 157-167.

Social Science

Kittinger, J. N., et al. (2012). "Sociocultural significance of the endangered Hawaiian monk seal and the human dimensions of conservation planning." Endangered Species Research **17**: 139-156.

National Marine Fisheries Service (2011). "Public perception and attitudes about the Hawaiian monk seal: Survey results report."

Management & Recovery Actions

Baker, J., et al. (2011). "Translocation as a tool for conservation of the Hawaiian monk seal." Biological Conservation **144**(11): 2692-2701.

Baker, J. D., et al. (2013). "A two-stage translocation strategy for improving juvenile survival of Hawaiian monk seals." Endangered Species Research **21**: 33-44.

Gobush, K., et al. (2012). "Behavioral Research Plan for the Hawaiian Monk Seal (Monachus schauinslandi); Pacific Islands Fisheries Science Center of NOAA Fisheries."

Harting, A. L., et al. (2014). "Benefits Derived from Opportunistic Survival-Enhancing Interventions for the Hawaiian Monk Seal: The Silver BB Paradigm." Endangered Species Research **25**: 89-96.

Jenkinson, E. M. and Aversive Conditioning Workshop (2009). "Aversive Conditioning and Monk Seal - Human Interactions In The Main Hawaiian Islands." Technical Review Prepared for the Aversive Conditioning Workshop, Honolulu, Hawaii; November 10-11, 2009.

National Marine Fisheries Service (2007). "Recovery Plan for the Hawaiian Monk Seal (Monachus schauinslandi): Revision."

National Oceanic and Atmospheric Administration National Marine Fisheries Service (2014). "Programmatic Environmental Impact Statement for Hawaiian Monk Seal Recovery Actions ". LINK: http://www.nmfs.noaa.gov/pr/permits/eis/hawaiianmonksealeis.htm

Yochem, P. K., et al. (2004). Contingency Plan for Hawaiian Monk Seal: Unusual Mortality Events, US Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Pacific Islands Fisheries Science Center.

Permits

NMFS-16632-00. Permit to Take Protected Species for Scientific Research and Enhancement Purposes. Issued by USDOC/NOAA/NMFS. Valid June 16, 2014 - June 30, 2019.

PMNM-2015-001. Conservation and Management Permit: Co-Trustee Conservation and Management Activities in Papahanaumokuakea Marine National Monument. Issued by Papahanaumokuakea Marine National Monument. Valid January 1, 2015 – December 21, 2015.

PMNM-2015-009. Conservation and Management Permit: Selective Removal of Predatory Sharks at Hawaiian Monk Seal Pupping Sites of French Frigate Shoals. Issued by Papahanaumokuakea Marine National Monument. Valid June 1, 2015 – May 31, 2016.

Field Operations

Hawaiian Monk Seal Research Program (2015). 2015 Field Manual for Research on the Hawaiian Monk Seal.

- o 2015 Science objectives
- 2015 Island Specific Maps
- Bleaching
- Census/Survey
- Disturbance and related BMPs
- Field data collection and editing
- o Intervention
- Master ID database

- o Necropsy Protocol and Form
- Photography
- o Specimen Collection Protocol
- Survival Factors
- o Tagging and handling
- o Translocation
- o Aggressive male response
- Seal handling protocol
- o Epidemiological sampling protocol
- Deworming protocol
- o After Camp data archiving and storage
- o After Camp specimens archiving and storage